

**PLYMOUTH LIGHT**  
Gurnet Point  
Plymouth  
Plymouth County  
Massachusetts

**HAER No. MA-148**

HAER  
MASS.  
12-PLYM.  
33-

**PHOTOGRAPHS  
WRITTEN HISTORICAL AND DESCRIPTIVE DATA**

**HISTORIC AMERICAN ENGINEERING RECORD**  
National Park Service  
Chesapeake / Allegheny System Support Office  
U. S. Custom House  
200 Chestnut Street  
Philadelphia, PA 19106

# HISTORIC AMERICAN ENGINEERING RECORD

## PLYMOUTH LIGHT

HAER  
MASS,  
12-PLYM,  
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HAER No. MA-148

**Location:** Gurnet Point, Plymouth, Plymouth County, Massachusetts  
USGS Duxbury MA Quadrangle  
Universal Transverse Mercator Coordinates: 19.376400.4651160

**Date(s) of Construction:** 1843

**Engineer, etc.:** unknown

**Present Owner(s):** United States Coast Guard  
Aid to Navigation Team—Boston  
427 Commercial Street  
Boston, MA 02109

**Present Occupant(s):** Unmanned facility

**Present Use:** Active navigational aid

**Significance:** Plymouth Light, built in 1843, is significant as the oldest timber-framed lighthouse in the United States. It is located on the Gurnet, a strategic coastal location that has been the site of fortifications manned during the Revolutionary War, the War of 1812, the Civil War, and World War II, and was also the site of a U.S. Coast Guard life saving station.

**Project Information Statement:** The United States Coast Guard (USCG) proposes to move Plymouth Light, a property listed in the National Register of Historic Places, 135 feet northeast in response to ongoing coastal erosion. The proposed project will have an adverse affect on this historic property. In accordance with an agreement between the United States Coast Guard and the Massachusetts State Historic Preservation Office (SHPO), Historic American Engineering Record documentation was to be prepared for Plymouth Light prior to its relocation.

Matthew A. Kierstead, Industrial Historian

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Pawtucket, Rhode Island 02860

## **PART I. DESCRIPTIVE INFORMATION**

Plymouth Light is located on the south ramparts of Fort Andrew, at the extreme southeast edge of the Gurnet, a 70-ft high glacial till headland on the north side of the mouth of Plymouth Bay. A modern lighthouse keeper's dwelling is located several dozen feet to the northwest, outside the fort ramparts, and the Gurnet Point Observation Station, a World War II coastal defense structure, is located several dozen feet to the east.

Plymouth Light is octagonal in plan and tapered in section, giving it a "saltshaker" profile. It measures 39 ft high and 20 ft across at the base. The three-story structure rests on a low, quarry-faced, granite block foundation. The sides are sheathed in closely-spaced shingles, painted white. A one-story, side-gabled, shingle-roofed ell extends to the north, with a modern paneled wood entrance door located in the west elevation, and a multi-pane, double-hung, wood-sash window located in the east elevation. This ell originally served as entrance to a second tower, no longer extant. The granite block foundation of the second tower is still in place to the north. The first floor is lit by a window on the west elevation, the second floor is lit by a single window located on the east elevation, and the third floor is lit by a similar window in the south elevation. Each window is sheltered by a tall, sloping, shingled awning.

The top of the tower is marked by a simple, shallow cornice with a metal pipe railing. The lantern is set back from the cornice and encircled by a narrow deck with a plaque marked "1843" on its north edge. The lantern is cylindrical, with multiple vertical panes of glass set into metal mullions and has a shallow, conical metal roof with a spherical decorative finial ventilator with a tall lightning rod. There is no access to the lantern from inside the lighthouse; the lantern is reached by placing a ladder against the northwest side to reach a short metal ladder mounted to the edge of the deck where there is a gap in the railing.

The tower interior is divided into three floors, connected by a simple, railed wood staircase. The structural system consists of heavy, notched and pegged, hand-hewn and band-sawn, timber framing. Eight inclined posts rise from the angle points of the foundation to the lantern base, which consists of eight short, horizontal radiating beams joined at the center of the structure. This structural system is stiffened with timber X-braces located in the panels between the inclined posts. The structural system supporting the second floor consists of four large beams arranged in two parallel pairs and intersecting at right angles. The ends of the beams are notched into the inclined posts, and the staircase penetrates the floor in the square area at the center of the floor beam structure.

A modern fog horn is located at the base on the southeast side of the lighthouse, and a solar panel array is located approximately 20 feet to the southwest. The poured concrete foundation of an electrical generator house, no longer extant, is located to the northwest.

## **PART II. HISTORICAL INFORMATION**

Plymouth Light, built in 1843, is primarily significant as it is the oldest standing timber-framed lighthouse in the United States. When originally constructed, this aid to navigation perpetuated the tradition of twin lit beacons at this site, and had two identical, attached towers. The second tower, originally located immediately to the southwest, was removed in 1924 as part of navigation improvements for increased coastal marine traffic associated with the Cape Cod Canal, opened in 1914 (Flaherty 1976:5). A number of

outbuildings including a fog horn building were located south and west of the lighthouse, but evidence of these structures has been removed by coastal erosion.

The Gurnet, with its commanding view of Plymouth and southern Massachusetts bays, has long been an important, strategic coastal location. Plymouth Light is located on the ramparts of Fort Andrew, which was manned and improved during the Revolutionary War, the War of 1812, and the Civil War. Fort Andrew is also the location of Gurnet Point Observation Station, constructed during World War II as part of the Boston Harbor defense system. The Gurnet has also hosted a life saving station (Adams and Kierstead 1996:7). The first lighthouse on the Gurnet was erected by local citizens in 1768 to protect mariners from the Brown Island Shoals at the entrance to Plymouth Harbor. That structure was 30 ft long, 20 ft high, and exhibited two lamps, one burning at each end. It was notable for being struck by a cannonball fired from the British frigate *Niger* during a Revolutionary War skirmish in 1776 (Morris 1982:2). In 1790 Massachusetts ceded the lighthouse to the Federal government. On July, 2, 1801, the structure was destroyed by fire. A temporary beacon was erected and replaced by a permanent lighthouse in 1803. That structure was damaged by storms, and the existing lighthouse was built in 1843 (Flaherty 1976:4).

### **PART III. SOURCES OF INFORMATION**

#### **A. Engineering drawings:**

U.S. Coast Guard Civil Engineering Unit, Warwick, RI. July 2, 1867 (Drawing No. 1617) entitled: "Plan of Land Belonging to the United States at the Gurnet, Plymouth Harbor, Mass."

#### **B. Historic views:**

U.S. Coast Guard Civil Engineering Unit, Warwick, RI. Circa 1900 view of Plymouth Light looking southeast showing double lighthouse towers and outbuildings.

#### **C. Interviews:**

None conducted.

#### **D. Bibliography:**

Adams, Virginia H. and Matthew A. Kierstead

1996 *Massachusetts Historical Commission Historic Archaeological Site Form for Fort Andrew, Plymouth, Massachusetts*. Massachusetts Historical Commission, Boston, MA.

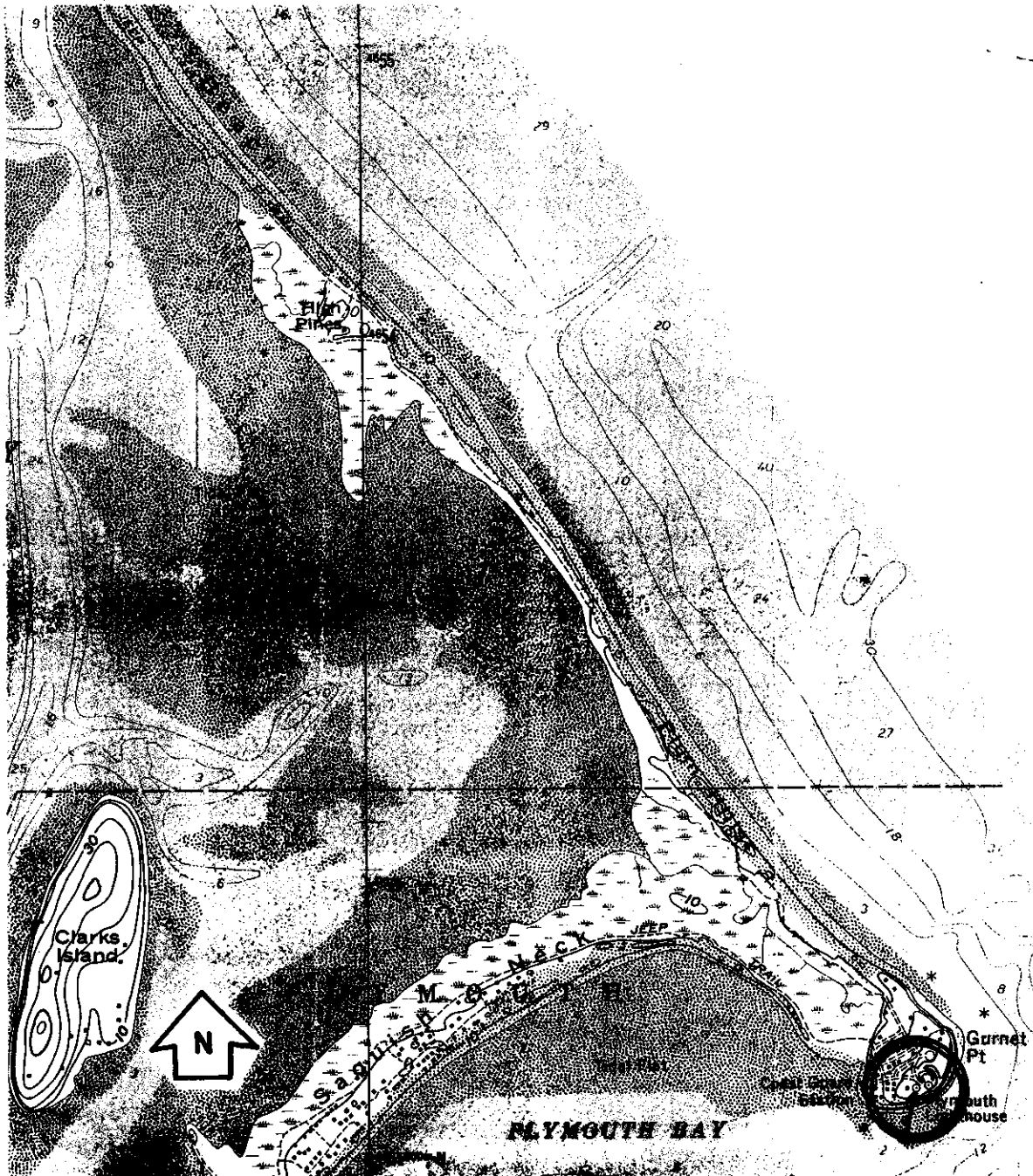
Flaherty, M.F.

1976 *National Register of Historic Places Inventory—Nomination Form for Plymouth (Gurnet) Light Station*. Massachusetts Historical Commission, Boston, Massachusetts.

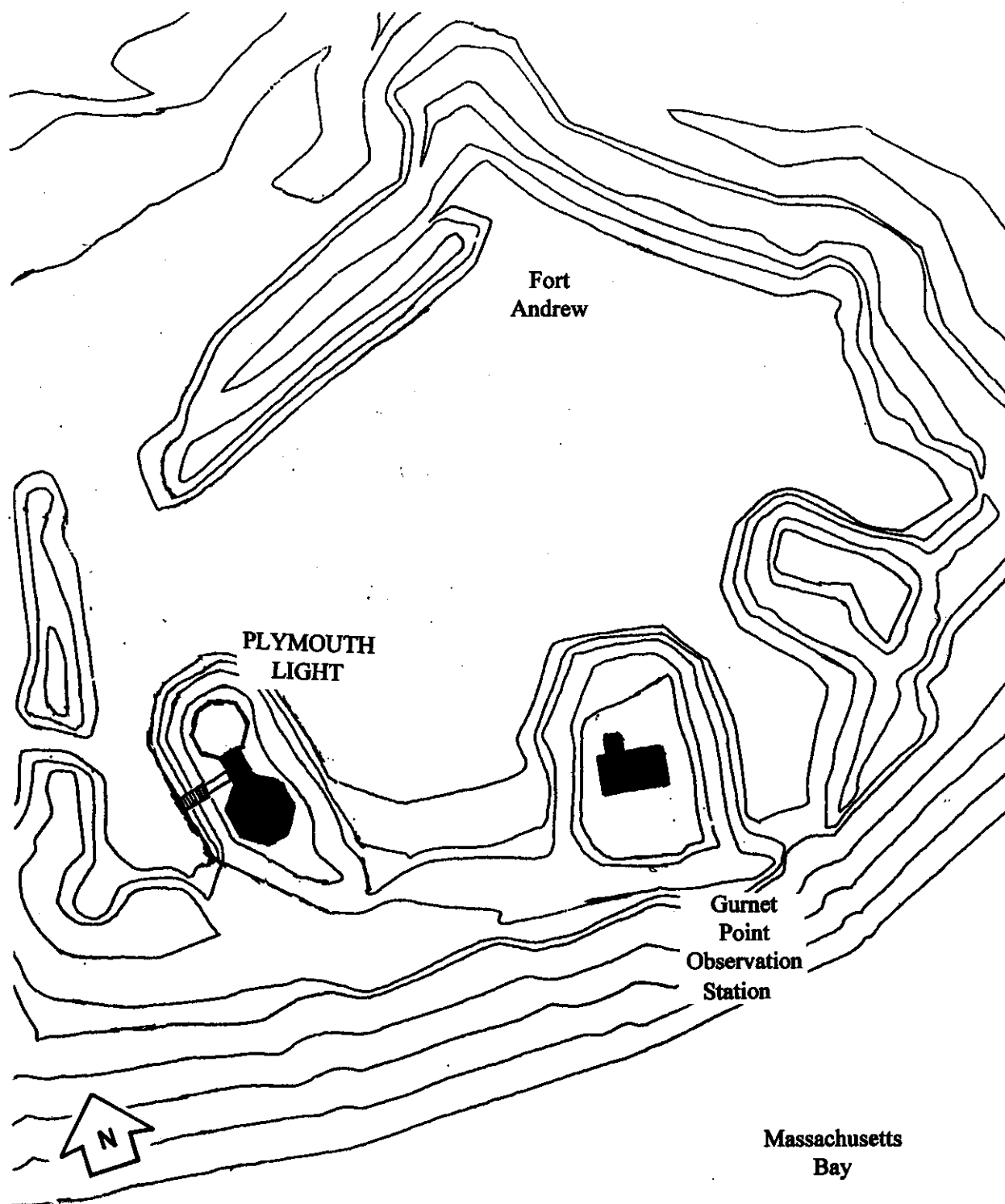
Morris, Charles W. E.

1982 "The Gurnet," *Pilgrim Society Notes*. No.30: 2.

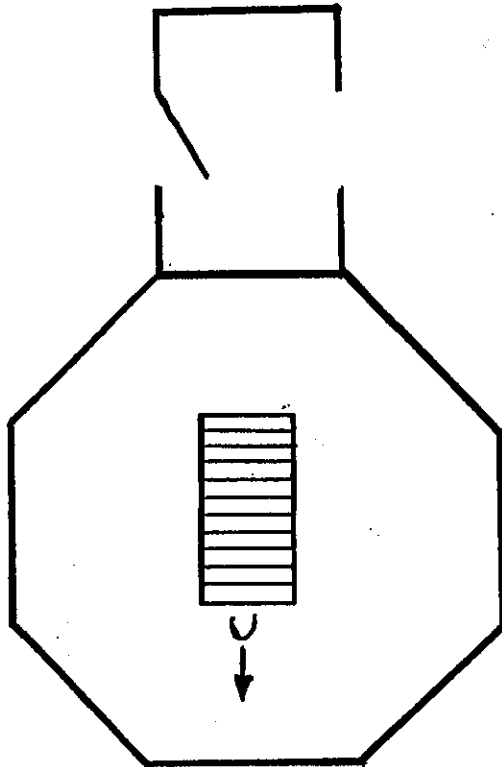
### Location Map



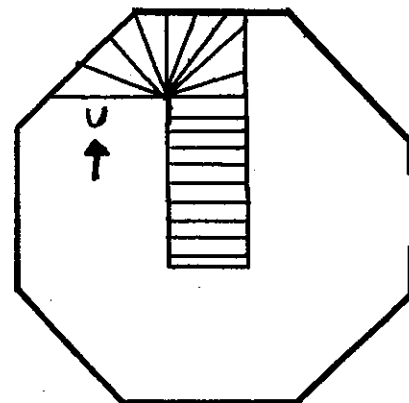
**Site Plan**



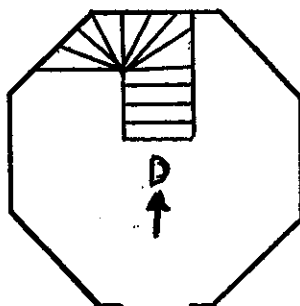
**Floor Plans**



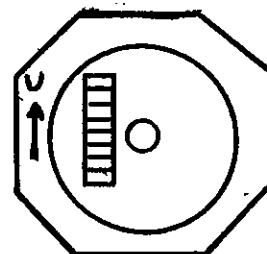
**FIRST  
FLOOR**



**SECOND  
FLOOR**



**THIRD  
FLOOR**



**LANTERN**